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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,099	09/10/2003	Richard B. Brooke	0155.12-0004	4325

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EXAMINER	
SODERQUIST, ARLEN	

ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/659,099	BROOKE, RICHARD B.	
	Examiner	Art Unit	
	Arlen Soderquist	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-27 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 10 September 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 3-4, 15-16 and 23-25 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: related to the connection between the claimed components and/or the other components that might be in a portable communications device such as for raising the volume of the speaker to hear better during a cellular conversation.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 6-7, 10-13, 17 and 20-22 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Takeda (JP 2002-44007). In the published application Takeda teaches a portable telephone, a cellular telephone with a bad breath measurement function. The device overcomes a problem of separately carrying a foul breath measuring device or the like, and to enable the user to measure his foul breath in public without getting embarrassed. A measurement circuit measures the degree of bad breath and alcohol concentration in the exhalation of a telephone user, based on the output of a sensor (30) placed near a microphone (22). The sensor detects the predetermined gas and alcohol in the exhalation. A display switch (13) changes the display state of a display (20) displaying the measurement result. Furthermore, it is equipped with a speaker (24) which outputs the measured result in voice when an audio output button (14) is pushed down and an earphone jack (28) that outputs the measured result in voice through the intermediary of a connected earphone. The degree of the bad breath and alcohol concentration of user can be checked, aiding in healthcare. The figure shows a front elevation of the mobile telephone with bad breath measurement function.

4. Claims 1-2, 6-8, 10-13, 17-18, 20-22 and 26 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ito (EP 1,046,910). In the published application Ito teaches a cellular phone equipped with apparatus for measuring gaseous components of breath. The housing (cell

phone housing) has an inlet for breath on the front and an outlet on the back; an electrical power supply connected, via a switch, to a central processing unit (CPU) and, both connected to the CPU, a gas sensor (positioned between the inlet and outlet) and a display device on the front of the housing. The sensor is particularly used to detect halitosis or to determine the amount of alcohol in the breath, but may also be used to detect other sorts of body odor. The gauge is small enough to be used inconspicuously, especially when incorporated into a cellular telephone (which may be used for a normal conversation at the same time as taking measurements), and the results can be read at a glance. On the external top side (inside) of the case body (21) of the portable telephone set, a reception opening (22) provided with a reception part inside and a speech opening and blow-in hole (23) provided with a transmission part inside are formed. On the reverse side (outside), a blow-out opening (24) for discharging inhalation so that the inhalation which is blown in stays in the portable telephone set is formed, and the blow-out hole penetrates the case main body 21. A liquid crystal display (6) provided on the top side displays a telephone number inputted with an operation key group (7) and the telephone number and name of a caller at the time of incoming call and is also used to display various information giving notice of the result of odor measurement, the wait time in measurement standby mode, and the consumption of a battery by using characters and figures. Column 3, lines 9-13 teach the incorporation of a buzzer to respond to the detection of the exhaled gas by the sensor. Column 3 lines 32-34 teach the use of a semiconductor sensor or other suitable sensor to measure the components of the gas. Column 5, lines 28-35 teach the halitosis sensor as a tin oxide sensor with a ceramic insulator body and a heater as taught in Japanese published application 1-35368. Column 1, lines 17-32 teach that the halitosis is cause by odorous compounds such as hydrogen sulfide and methyl mercaptan. Column 6, lines 40-51 teach that the alcohol sensor is also a tin oxide semiconductor sensor (10). Columns 7-12 teach the cell phone components and the various options available to one in order to make the measurements.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 8-9, 18-19 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda as applied to claims 7, 17 and 21 above, and further in view of Jenness (US 5,260,989) or Kaschke (US 5,999,821). Takeda does not teach the type of display used.

In the patent Jenness teaches a system for data transmission in a cellular telephone system. The system has a display (18) that is taught as a liquid crystal display, a gas plasma display or any other suitable display technology (column 3, lines 44-49).

In the patent Kaschke teaches a radiotelephone (cellular or cordless) with a user interface module. The user interface circuitry (304) includes an earpiece electroacoustic transducer (322), a microphone electroacoustic transducer (324), a data input circuit (326) and an electronic display (328). Column 4, lines 4-22 teach that the electronic display can be any type of electronic display including but not limited to a liquid crystal display, a light emitting diode display, a vacuum fluorescent display, and a plasma display.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a liquid crystal or plasma display as taught by Jenness or Kaschke as the Takeda display because of their known use as displays for cellular telephones as taught by Jenness and Kaschke.

7. Claims 9, 19 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito as applied to claims 7, 17 and 21 above, and further in view of Jenness (US 5,260,989) or Kaschke (US 5,999,821) as explained above. Ito does not teach a plasma type of display in the cell phone.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plasma display as taught by Jenness or Kaschke as the Ito display because of its known equivalent use as a display for cellular telephones as taught by Jenness and Kaschke.

8. Claims 3-5, 14-16 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda or Ito as applied to claims 1-2, 12-13 and 22 above, and further in view of Nakamura (US 4,823,803) or Phillips (US 5,220,919). Ito and Takeda do not discuss the sensor circuitry.

In the patent Nakamura (in the family of the halitosis sensor specifically identified by in Takeda) teaches a stannic oxide sensor for halitosis. Figures 1-3b, 8 and 10 show various circuitry for operating the sensor. Included in the circuitry is an analog to digital converter (A/D 116) and a control circuit (28) capable of varying the voltages between the electrodes (22-23) of the sensor unit (20)

In the patent Phillips teaches a blood alcohol monitor that measures the alcohol level with a gaseous ethanol sensor. In the circuitry of figure 2, an analog to digital converter (210) is found between the various sensors and the processor. Figure 3 shows a current to voltage converter (312) and amplifier (316) between the sensor and the analog to digital converter.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use sensor circuitry as taught by Nakamura or Phillips in the Ito and Takeda sensors because of its known use as a sensing circuit for alcohol and halitosis monitors as taught by Nakamura and Phillips.

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-47 of copending Application No. 10/769,000. The instant claims are of a scope that is similar to and encompasses

to the 10/769,000 claims such that one could not practice the 10/769,000 claims without practicing the instant claims.

This is a provisional obviousness-type double patenting rejection.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited art was cited in the copending application of relates to breath analysis sensors and monitors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arlen Soderquist whose current telephone number is (571) 272-1265 as a result of the examiner moving to the new USPTO location. The examiner's schedule is variable between the hours of about 5:30 AM to about 5:00 PM on Monday through Thursday and alternate Fridays.

A general phone number for the organization to which this application is assigned is (571) 272-1700. The fax phone number to file official papers for this application or proceeding is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arlen Soderquist

November 9, 2004
ARLEN SODERQUIST
PRIMARY EXAMINER